

AMENDMENT TO THE DRAWING(S)

Figs. 21-26 are amended. The attached replacement sheets replace the previously-submitted sheets including Figs. 21-26 of the Drawings.

REMARKS/ARGUMENTS

The present Amendment is responsive to the final Office Action mailed May 27, 2008, in the above-identified application.

New claim 45 is added. Therefore, claims 1, 3-28 and 45 are the claims currently pending in the present application.

Claims 1 and 11 are amended to clarify features recited thereby. Further, claims 14-16 are amended so they continue to depend from a claim pending in the application. In addition, claims 15 and 16 are amended to correct typographical errors. These amendments to the claims are fully supported by applicant's disclosure, see, for example, paragraph 109 on page 7 of U.S. Patent Application Publication No. 2006/0083948 (the U.S. publication of the present application) disclosing the surface resistivity range of the composite layer recited in claim 1, and paragraphs 136, 149, 261 and Figs. 8 and 9 of U.S. Patent Application Publication No. 2006/0083948 for the amendment to claim 11.

Applicant thanks the Examiner for acknowledging review and consideration of the references cited in the Information Disclosure Statement filed on May 7, 2008.

Objection to the Drawings

Figs. 21-26 of the Drawings are objected to on the ground that there is no definition of the acronym "MSL" recited in the titles of these Figures. As explained, for example, at paragraph 356 of applicant's disclosure with reference to Comparative Example 12, the acronym MSL stands for micro strip line, which is a method of measuring electromagnetic noise transmission (or reflection). Filed herewith are amended Figs. 21-26 to clarify the values illustrated by the graphs.

Objection to the Claims

Claims 15 and 16 are objected to on the ground that the exponents denoting the powers of 10 were not shown as superscripts. Claims 15 and 16 are amended accordingly.

Rejection of Claims 11 and 14-16 under 35 U.S.C. § 112, Second Paragraph

Claims 11 and 14-16 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite on the ground that claim 11 recites the term "specific gravity" and it is unclear to which materials this refers. Further, claims 14-16 are rejected as indefinite on the ground that they depend from canceled claim 2.

Claims 11 and 14-16 are amended.

Rejection of Claims 1, 3-13, 17, 18 and 21 under 35 U.S.C. § 103

Claims 1, 3-13, 17, 18 and 21 are rejected under 35 U.S.C. § 103 as being obvious from Senda et al., U.S. Patent No. 5,990,417. Reconsideration of this rejection is respectfully requested.

Without intending to limit the scope of the claims, according to an aspect of applicant's invention, an electromagnetic noise suppressor is provided that has a high EM noise suppression effect in the sub-microwave band, requires relatively little installation space, is light in weight, is flexible and has high strength, has an adequate flame retarding property and also has a good EM radiation shielding property, as explained in paragraphs 22-25 of applicant's disclosure. For example, according to an aspect of applicant's invention as claimed in claim 1, an EM noise suppressor with a surface resistivity in the range of 1×10^1 to $1 \times 10^{10} \Omega/\square$ is achieved. It will be understood that the symbol Ω/\square is a measure of surface resistivity that is a property of the material that it describes, and thus the square (\square) refers to a surface area of the material of any size.

Claim 1 requires an electromagnetic noise suppressor comprising a base material containing a binding agent and a composite layer comprising the binding agent and a magnetic material and a crystal portion made of nanometer scale crystals of atoms of the magnetic material disposed in a crystal lattice, the binding agent portion including the binding agent without the nanometer scale crystals of the atoms of the magnetic material, and a dispersed portion comprising atoms of the magnetic material dispersed without crystallizing in the binding agent, wherein surface resistivity of the composite layer is in a range from 1×10^1 to $1 \times 10^{10} \Omega/\square$.

Senda discloses an electromagnetic noise absorbing material and an electromagnetic noise filter, the EM noise absorbing material comprising a binding agent (non-magnetic insulating material) and a magnetic material (an alloy magnetic substance), such that the binding agent and the magnetic material are integrated with each other into a composite layer.

Senda does not disclose or suggest a composite layer comprising the binding agent and the magnetic material integrated with each other and a crystal portion made of nanometer scale crystals of atoms of the magnetic material disposed in a crystal lattice, the binding agent portion including the binding agent without the nanometer scale crystals of the atoms of the magnetic

material, and a dispersed portion comprising atoms of the magnetic material dispersed without crystallizing in the binding agent, as required by claim 1. That is, Senda does not disclose or suggest the complex heterogeneous structure claimed in claim 1.

Further, Senda does not disclose or suggest surface resistivity of the composite layer in the range 1×10^1 to $1 \times 10^{10} \Omega/\square$, as further required by claim 1. That is, Senda does not provide a composite layer that achieves the high EM radiation shielding property that the above-noted surface resistivity range represents. Accordingly, Senda does not disclose or suggest the recitations of claim 1.

Claims 3-13, 17, 18 and 21 depend from claim 1 and are therefore patentably distinguishable over the cited art for at least the same reasons.

Rejection of Claims 14-16 under 35 U.S.C. § 103

Claims 14-16 are rejected under 35 U.S.C. § 103 as being obvious from Senda in view of Farris et al., "The Characterization of Thermal and Elastic Constants for an Epoxy Photoresist SU8 Coating." Reconsideration of this rejection is respectfully requested.

Farris does not cure the above-discussed deficiencies of Senda as they relate to the above-noted features of claim 1. Further, the Office Action does not allege that Farris discloses or suggests such features. Therefore, since claims 14-16 depend from claim 1, they are patentably distinguishable over the cited art for at least the same reasons.

Rejection of Claims 19 and 20 under 35 U.S.C. § 103

Claims 19 and 20 are rejected under 35 U.S.C. § 103 as being obvious from Senda in view of Inomata et al., Japanese Patent Application Publication No. JP 2000-196281. Reconsideration of this rejection is respectfully requested.

Inomata does not cure the above-discussed deficiencies of Senda as they relate to the above-noted features of claim 1. Further, the Office Action does not allege that Inomata discloses or suggests such features. Therefore, since claims 19 and 20 from claim 1, they are patentably distinguishable over the cited art for at least the same reasons.

Rejection of Claims 1, 3-18, 21-24, 27 and 28 under 35 U.S.C. § 103

Claims 1, 3-18, 21-24, 27 and 28 are rejected under 35 U.S.C. § 103 as being obvious from Sato et al., U.S. Patent No. 5,864,088 in view of Senda. Reconsideration of this rejection is respectfully requested.

Sato discloses an electronic device with an EM interference suppressing body including a conductive support and a non-conductive soft magnetic layer (Sato, Abstract). Sato discloses an EM interference suppressor with a base material containing a binder (organic binder 4), a composite layer consisting of the binding agent (organic binder 4) and a magnetic material (soft magnetic powder 3) uniformly dispersed in the binder.

Sato does not disclose or suggest the complex heterogenous structure noted above as required by claim 1. Further, Sato does not disclose or suggest the surface resistivity range of the composite layer required by claim 1. Accordingly, even taken together in combination, Senda and Sato do not disclose or suggest the recitations of claim 1.

Claims 3-18, 21-24, 27 and 28 depend from claim 1 and are therefore patentably distinguishable over the cited art for at least the same reasons.

Rejection of Claims 25 and 26 under 35 U.S.C. § 103

Claim 25 is rejected under 35 U.S.C. § 103 as being obvious from Sato and Senda in view of Okamura et al., U.S. Patent No. 6,104,530. Further, claim 26 is rejected under 35 U.S.C. § 103 as being obvious from Sato, Senda and Okamura in view of Kadokura et al., U.S. Patent No. 4,784,739. Reconsideration of these rejections is respectfully requested.

Okamura and Kadokura do not cure the above-discussed deficiencies of Senda and Sato as they relate to the above-noted features of claim 1. Further, the Office Action does not allege that Okamura and Kadokura disclose or suggest such features. Therefore, since claims 25 and 26 depend from claim 1, they are patentably distinguishable over the cited art for at least the same reasons.

Provisional Rejection of Claims 1, 13 and 14

Claims 1, 13 and 14 are provisionally rejected on the ground of non-statutory obviousness-type double patenting as being obvious over claims 1, 3, 5, 7, 13 and 14 of co-pending U.S. Application No. 10/538,132.

It is respectfully submitted that Application No. 10/538,132 is still pending and that the Office Action acknowledges that the rejection is provisional since no claims have as of yet been patented. Accordingly, Applicant will respond substantively to any rejection over claims of Application No. 10/538,132 if and when any such claims are issued in a patent and the rejection is maintained.

New Claim

New claim 45 is added so as more fully to claim patentable aspects of applicant's invention. New claim 45 is fully supported by applicant's disclosure. See, for example, the discussion of the examples beginning at paragraph 255 of applicant's disclosure with respect to the physical vapor deposition with the energy range recited in claim 45.

New claim 45 depends from claim 1 and is therefore is patentably distinguishable over the cited art for at least the same reasons.

In view of the foregoing discussion, withdrawal of the objections and the rejections and allowance of the application are respectfully requested.

THIS CORRESPONDENCE IS BEING
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RCF:GB:ns

Respectfully submitted,



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